

The schematic diagram illustrates a multi-zone furnace system. It features three distinct temperature zones labeled T1, T2, and T3. Feed lines enter from the top, and return lines exit at the bottom. Each zone contains a set of heating elements (290) and a thermocouple (292). The thermocouples are connected to individual PID controllers (labeled PID). The output of each PID controller is fed back into the heating element circuitry. Additionally, there are three flow meters or sensors (300, 302, 304) positioned along the return lines, each receiving input from its respective PID controller. A central control unit (310) is shown at the bottom, which manages the overall system operation.

File 5

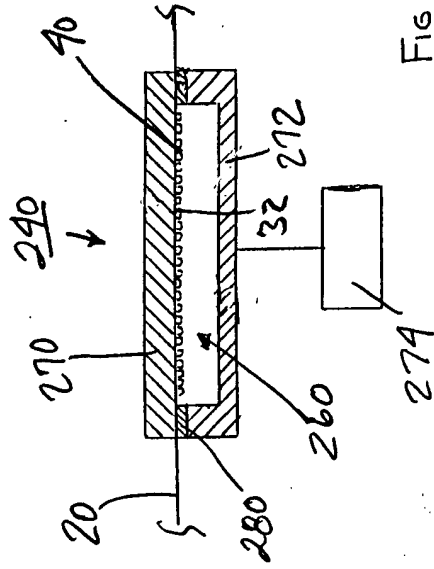


Fig. 4

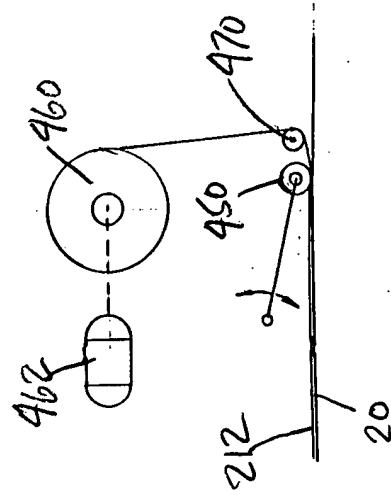


Fig. 6

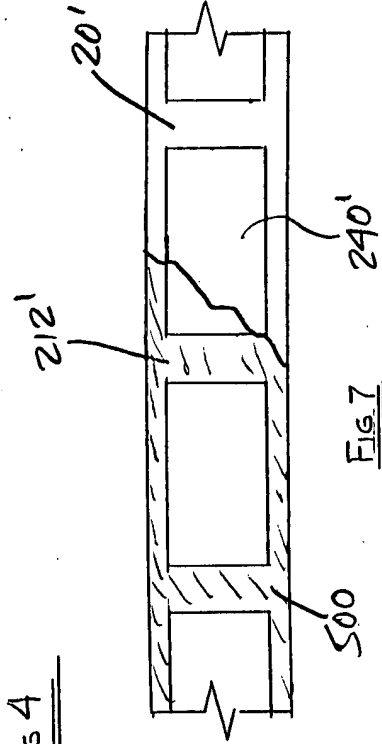


Fig. 7

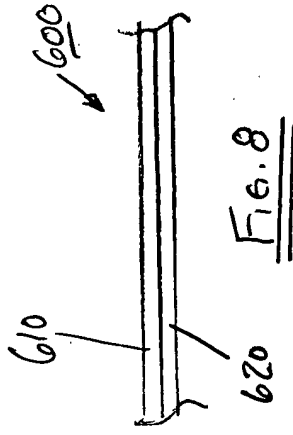


Fig. 8